



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,934	01/15/2002	Griffith S. Evans	P56315	1494

7590 11/15/2004  
Robert E. Bushnell  
Suite 300  
1522 K Street, N.W.  
Washington, DC 20005

EXAMINER

RIVELL, JOHN A

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/044,934

Applicant(s)

EVANS, GRIFFITH S.

Examiner

John Rivell

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/20/04 (req. for clarif.).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 and 30-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-29 and 42-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

This action is in response to a request for clarification, filed October 20, 2004, of the Office action dated August 25, 2004. The Office action of August 25, 2004 unfortunately contained several errors on the Examiners part in the explanation of the rejections proffered therein. The Examiner regrets any inconvenience caused by this error. Based on applicants request for restarting the response period and M.P.E.P. §710.06 which dictates when and how periods for response are restarted, the period for response to this Office action is set to expire **TWO MONTHS** from the date of this Office action.

Applicant's election with traverse of the invention of Group II, claims 13-29 and 42-50 in the reply filed on May 19, 2004 is acknowledged. The traversal is on the ground(s) that "the subject matter of the three groups overlap", "mandatory fields of search are coextensive", the claims are directed to a single species of the disclosed invention and that the Examiner "has not identified the three subcombinations or explain where these three subcombinations are disclosed".

This is not found persuasive because the subject matter of the three groups of invention set forth in the originally filed claims "overlap" only when they are considered together as in the disclosed invention. As claimed there is no overlap. While fields of search may include some similar subject, the field of search does not determine the propriety of a restriction of invention requirement.

Additionally, the argument that the Examiner fails to identify the three groups of inventions is not well taken in view of the requirement mailed April 19, 2004, page 2 thereof which lists three different groups of invention as "I, II and III" and has listed

Art Unit: 3753

those claims directed to the specifically claimed invention. Also, it is not required for the Examiner to relate "where these subcombinations are disclosed" because they are disclosed in the application.

As is concerns the groups of invention as set forth in the previous Office action, all of these groups are directed to one of three subcombinations of invention claimed and disclosed. They are disclosed as usable together as disclosed. There is no "overlap" of subject matter between the independent claims for example, and thus the independent claims are presumed to be separately patentable. The fact that there is no common claimed subject matter among the independent claims, and that, as claimed, the devices envisioned by the claims are separately useable (as required in M.P.E. P §8056.05(d)) leads one to conclude that, as claimed, the inventions as set forth in the claims are independent and distinct.

Lastly, applicant does not argue, or provide supporting evidence that the inventions, as grouped, are not independent and patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-12 and 30-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 19, 2004.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3753

Claims 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 28 and 29 recite the limitation "said sleeve" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-16, 18-21, 23-26 and 42-50 are rejected under 35 U.S.C. §102 (b) as being anticipated by Dean et al. (cited by applicant)

The patent to Dean et al. discloses "an apparatus, comprising: a mount (body 12); a piston (25) adjacent to said mount, said piston being of a shape for defining a movement direction of the piston; a shear pin (29) with one end of the shear pin press fit in an aperture in said mount (12) and an another end of the shear pin inserted in an aperture (defined by flanges 27, 31) in said piston, for restraining the piston (25) relative to the mount (12); a hammer region (on the right of flange 37) formed on said piston and located in a direction of motion of said piston; and a strikable part (nipple 38 and/or 39) mounted in the direction of motion of the piston from said hammer region and separated from the hammer region by a gap (as illustrated in the figure), said hammer region for striking said strikable part upon movement of the piston in the direction of motion through said gap" as recited in claim 13.

Art Unit: 3753

Regarding claim 14, in Dean et al., "said strikable part (nipple 38 and/or 39 is) mounted to said mount (12)" as recited.

Regarding claim 15, in Dean et al., "a stationary part (the remainder of nipples 38/39 at 41 and or 42) connected to said strikable (38 and/or 39) part by a shearable link (the sheared portion connecting the nipples 38, 39 to the supports 41, 42), said strikable part for being separated from said stationary part upon being struck by said hammer region with an input for shearing said shearable link" as recited.

Regarding claim 18, Dean et al. discloses "an apparatus comprising a mount (12); a piston (25) adjacent to said mount, said piston being of a shape for defining a movement direction of the piston; a shear pin (29) with one end of shear pin inserted in an aperture in said mount (as illustrated in the figure) and another end of the shearpin inserted in an aperture (defined by flanges 27, 31) in said piston, for restraining the piston relative to the mount; a hammer region (on the right side of flange 37) formed on said piston and located in a direction of motion of said piston; a strikable part (nipples 38 and/or 39) mounted in the direction of motion of the piston from said hammer region and separated from the hammer region by a gap (as illustrated in the figure 1), said hammer region for striking said strikable part upon movement of the piston in the direction of motion through said gap, and said shearpin being positioned in spaced relation from said strikable part in the direction of motion of said piston" as recited.

Regarding claim 19, in Dean et al., "said strikable part (38 and/or 39) being mounted to said mount (12)" as recited.

Art Unit: 3753

Regarding claim 20, in Dean et al. "a stationary part (the remainder of nipples 38, 39 at supports 41, 42) connected to said strikable part by a shearable link (the sheared portion connecting the nipples 38, 39 to the supports 41, 42), said strikable part for being separated from said stationary part upon being struck by said hammer region with an input force for shearing said shearable link" as recited.

Regarding claim 21, in Dean et al., "said stationary part (41, 42) being connected to said mount (12)" as recited.

Regarding claim 23, Dean et al. discloses "an apparatus, comprising: a mount (12); a piston (25) adjacent to said mount, said piston being of a shape for defining a movement direction of the piston; a shear pin (29) with one end of the shear pin inserted in an aperture in said mount (as illustrated in the figure) and another end of the shear pin connected to said piston (25) through a sleeve (read at the flanges 27, 31) for restraining the piston relative to the mount; a hammer region (on the right side of flange 37) formed on said piston and located in a direction of motion of said piston; and a strikable part (38 and/or 39) mounted in the direction of motion of the piston (25) from said hammer region and separated from the hammer region by a gap (as illustrated in the figure 1), said hammer region for striking said strikable part upon movement of the piston in the direction of motion through said gap" as recited.

Regarding claim 24, in Dean et al., "said strikable part (38 and/or 39 is) mounted to said mount (12)" as recited.

Regarding claim 25, in Dean et al., the "stationary part (the remainder of nipples 38, 39 at supports 41, 42 is) connected to said strikable (38 and/or 39) part by a

Art Unit: 3753

shearable link (the sheared portion connecting the nipples 38, 39 to the supports 41, 42), said strikable part for being separated from said stationary part upon being struck by said hammer region with an input force for shearing said shearable link" as recited.

Regarding claim 26, in Dean et al., "said stationary part (the remainder of nipples 38, 39 at supports 41, 42 is) connected to said mount" 12 as recited.

Regarding claim 42, when one makes and/or uses the device of Dean et al. one necessarily performs "a method for restraining free play in an apparatus, comprising the steps of: providing a mount (12); providing a piston (12) adjacent to the mount, said piston being of a shape for defining a movement direction of the piston; and inserting an end of a shear pin (29) into an aperture in the mount (12, as illustrated in the figure) and connecting another end of the shear pin (29) to the piston (25, between flanges 27, 31) relative to the mount" as recited.

Regarding claim 43, one also necessarily performs the method including "with said piston being restrained relative to the mount (by pin 29), striking a strikable part (nipples 38 and/or 39) with a hammer region (the right side of flange 37) formed on the piston (25) in a direction of motion of the piston by traversing the piston through a gap (shown as the "gap" between the right side of flange 37 and the left edge of nipple 38 and/or 39) separating the hammer region from the strikable part" as recited.

Regarding claim 44, one also necessarily performs the method including "separating the strikable part (38, 39) from a stationary part (41, 42) upon being struck by the hammer region of the piston" as recited.

Art Unit: 3753

Regarding claims 45 and 46, one also necessarily performs the method including “shearing the shear pin (29) by motion of the piston (25)” as recited.

Regarding claim 47, one who makes and/ or uses the device of Dean et al. necessarily performs “a method for the restraining free play in an apparatus, comprising the steps of: providing a mount (12); providing a piston (25) adjacent to the mount, the piston being of a shape for defining a movement direction of the piston; and press fitting an end of a shear pin (29) into the mount (12) and coupling the other end of the shear pin to said piston (between flanges 27, 31), for restraining the piston relative to the mount” as recited.

Regarding claim 48, one also performs the method including “the piston restrained relative to the mount (by pin 29), striking a strikable part (nipples 38 and/or 39) mounted in the direction of motion of the piston by a hammer region (right side of flange 37) formed on the piston (25) by moving the piston through a gap (shown as the distance from the right side of flange 37 to the left side of nipple 38 and/or 39) separating the hammer region and the strikable part” as recited.

Regarding claim 49, one also performs the method including “separating the strikable part (38, 39) from a stationary part (41, 42) upon being struck by the hammer region” as recited.

Regarding claim 50, one also performs the method including “shearing the shear pin (29) by motion of the piston (25)” as recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3753

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dean et al.

The patent to Dean et al. discloses all the claimed features with the exception of having the "shear pin (29) being constructed to be shearable with less input force than the input force for shearing said shearable link" between the nipples 38, 39 and their support 41, 42.

However, to have the "shear pin being constructed to be shearable with less input force than the input force for shearing said shearable link" is considered to be an obvious design expedient over these features as disclosed in Dean et al., in that regardless of the value of the shear force necessary to shear both elements, both elements must be sheared in order to work. The value of shear force provides no new and/or unexpected results nor solves any stated problem.

Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dean et al. in view of Katzer (cited by applicant).

The patent to Dean et al. discloses all the claimed features with the exception of having "said sleeve being an eccentric sleeve, said eccentric sleeve including a bore for receiving said shearpin which is parallel to and not coaxial with an outer surface of said sleeve".

The features called for by the claims are directed to a pin or rod mounted to a bore in another element which permits relative movement between the rod or pin relative to the bore to permit positional adjustment. Such a feature is not exclusive to the device of claims 13-29 and 42-50 but can be found in any device connecting a rod or pin to a bore in which relative positional adjustment is desired.

Art Unit: 3753

The patent to Katzer discloses that it is known in the art to employ in a connection assembly connecting a rod or pin such as at 6d to a bore in another element at plate 5, an eccentric sleeve 7a, mounted in a bore of plate 6, receiving the rod 6d therein for the purpose of permitting limited relative positional adjustment of the rod and plate.

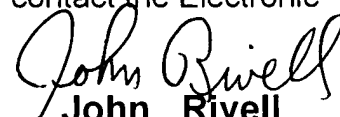
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Dean et al. an eccentric sleeve in which is mounted shear pin 29 for the purpose of permitting limited relative positional adjustment thus adjusting the "gap" of the device of Dean et al. as recognized by Katzer.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**John Rivell**  
**Primary Examiner**  
**Art Unit 3753**

j.r.